



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

SEP 28 1990

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Re: Scientific Chemical Processing Superfund Site In Carlstadt,
New Jersey - Administrative Order Docket Nos.: II-CERCLA-
00115.

Dear Respondent:

Enclosed please find a unilateral Administrative Order issued to your company and others under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended ("CERCLA") for performance of response actions at the Scientific Chemical Processing Superfund Site (the "Site") in Carlstadt, New Jersey. The enclosed Order, Index No. II-CERCLA-00116, was signed by the Regional Administrator on September 28, 1990, and by its terms will become effective on October 18, 1990.

In accordance with Paragraph 187 of the enclosed Order (Opportunity to Confer), you or other representatives of your company may confer with the Environmental Protection Agency ("EPA") to discuss the Order, including its applicability, the Findings upon which the Order is based, the appropriateness of any action or activity required under the Order, or any relevant issues, prior to the effective date of the Order. EPA representatives will be available to meet with you, your representatives, and representatives of other Respondents at 1:00 P.M., Tuesday, October 16, 1990 in Room 305C, 26 Federal Plaza, New York, New York.

Please call Pat Evangelista of my staff at (212) 264-6311 if you have any questions concerning this matter. All calls from attorneys should be directed to James Rooney, Assistant Regional Counsel at (212) 264-3297.

Sincerely yours,


Raymond Basso, Chief
New Jersey Compliance Branch

Enclosure

REGION II

**Index No.II CERCLA-
00116**

PFIZER, INC. :
 RANDOLPH PRODUCTS CO. :
 REVLON, INC. :
 SCHENECTADY CHEMICALS, INC. :
 SCIENTIFIC CHEMICAL PROCESSING, INC. :
 SMITHKLINE BECKMAN CORPORATION :
 TRANSTECH INDUSTRIES, INC. :
 (formerly SCIENTIFIC CHEMICAL :
 TREATMENT CO., INC.) :
 UPJOHN CORPORATION :
 UNION CARBIDE CHEMICALS & PLASTICS CO. INC.:
 (formerly UNION CARBIDE CORPORATION) :

Respondents

Proceeding Under Section 106(a) of the :
 Comprehensive Environmental Response, :
 Compensation and Liability :
 Act, as amended, 42 U.S.C. §9606(a). :
:

JURISDICTION

1. This Administrative Order ("Order") is issued to the Respondents by the United States Environmental Protection Agency pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §9601 et seq. This authority was delegated to the Administrator of the EPA by Executive Order 12580, dated January 23, 1987, and duly redelegated to the Regional Administrator of EPA, Region II. Notice of this Order has been given to the New Jersey Department of Environmental Protection ("DEP") pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

DEFINITIONS

2. As used in this Order, unless the context clearly requires some other meaning, the following terms shall have the following meanings:

a. CERCLA shall mean the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §9601 et seq.

b. EPA or USEPA shall mean the United States Environmental Protection Agency.

c. The SCP Carlstadt Site or the Site shall mean the real property (and all structures, soil, liquids, solids, sludges and containers thereon) which is approximately 5.9 acres in size and which has a street address of 216 Paterson Plank Road, Carlstadt, New Jersey, and which occupies Lots 1, 2, 3, 4, and 5 in Block 124 on the Tax Map for the Borough of Carlstadt, Bergen County, New Jersey. A map indicating the location of the Site is shown on Attachment 1 to this Order. The SCP Carlstadt Site or the Site shall also mean any place located outside the legal boundaries of the Lots identified above, into which hazardous substances may have migrated from any or all of Lots 1 through 5, identified above.

d. DEP shall mean the New Jersey Department of Environmental Protection.

e. Design Documents shall mean those documents, including all plans, specifications, engineering drawings and other documents describing facilities to be constructed at the Site, which will be prepared by the Respondents or their agents, and which are approved by EPA, to implement the Interim Remedy selected in the ROD issued for the Site by the Regional Administrator of EPA Region II on September 14, 1990.

f. Facility Coordinator shall mean the person designated by the Respondents who will be charged with the duty of being at all times knowledgeable of the performance of all work performed pursuant to this Order.

g. First operable unit zone or FOU zone shall mean all areas and points encompassed within the outer legal boundaries of the SCP Carlstadt Site (i.e., anywhere within Lots 1 through 5 in Block 124 in the Borough of Carlstadt, Bergen County, New Jersey) and extending from the ground surface of the Site down to and into the clay-silt layer which is alleged to exist at a depth of approximately fifteen(15) feet beneath the surface of the Site.

h. Hazardous substance shall mean any substance that falls within the definition of a "hazardous substance" as that term is defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14), and shall also mean any mixture(s) containing any such hazardous substance(s) at any concentration(s).

i. Inmar shall mean Inmar Associates, Inc., a corporation formed in the State of New Jersey on or about May 31, 1969 with Marvin H. Mahan as President and which has its principal place of business at 1703 East Second Street, Scotch Plains, New Jersey.

j. Interim Remedy shall mean the remedy selected for the SCP Carlstadt Site in the Record of Decision signed by the Regional Administrator of EPA-Region II on September 14, 1990.

k. National Contingency Plan or NCP shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated by EPA pursuant to Section 105 of CERCLA, 42 U.S.C. §9605, at 40 C.F.R. Part 300, and all amendments or modifications thereto.

l. Pollutant or contaminant shall have the meaning of that term as defined in Section 101(33) of CERCLA, 42 U.S.C. §9601(33).

m. Respondents shall mean the parties as named in the caption to this Order, and includes their officers, employees, agents, subsidiaries, assigns and successors.

n. ROD shall mean the Record of Decision which was signed by the Regional Administrator of EPA - Region II on September 14, 1990, which selected the Interim Remedy for the Site.

o. SCP shall mean Scientific Chemical Processing, Inc., a corporation formed in the State of Delaware on or about December 10, 1970 with Leif Siamond as President.

p. SCTC shall mean the Scientific Chemical Treatment Company, Inc., a corporation originally formed in the State of Delaware on or about November 4, 1965, with Marvin H. Mahan as President and Robert J. Meagher as Secretary/Treasurer; on or about February 11, 1966, SCTC registered in the State of New Jersey with the same corporate officers and with its principal place of business at 60 Prince Street, Elizabeth, New Jersey.

q. Scientific shall mean Scientific, Inc., the corporation formed by name change of SCTC on or about March 24, 1972.

r. Statement of Work or SOW shall mean the document appended to this Order as Attachment 8.

s. Work shall mean any activities of any type required by the terms of this Order, including any activities of any type which are necessary prerequisites or corequisites for the performance of any action required by this Order.

PARTIES BOUND

3. This Order shall apply to and be binding upon the Respondents, their principals, officers, agents, directors, employees, subsidiaries, successors and assigns.

FINDINGS

Site Background

4. The Site is included on the National Priorities List ("NPL"). The NPL, codified at 40 CFR Part 300, Appendix B, has been promulgated pursuant to Section 105(a)(8)(B) of CERCLA, 42 U.S.C. § 9605(a)(8)(B).

5. The Site is bordered by a waterway, Peach Island Creek, on the northwest, by Paterson Plank Road on the southeast, by Gotham Parkway on the southwest and by a commercial establishment on the northeast.

6. Peach Island Creek is a tidal waterway. Much of the area in the vicinity of the Site contains natural tidal wetlands. The Site is located within the flood plain of Peach Island Creek.

7. The area in the vicinity of the Site is currently zoned for light industrial uses by the Hackensack Meadowlands Development Commission. Active commercial facilities, including a bank and a new office building, are located in the immediate vicinity of the Site.

8. The existing land use classification for the Site and the land in the vicinity of the Site would also allow hotels and restaurants to operate in the area. Workers, commuters and other members of the general public frequently use Paterson Plank Road and Gotham Parkway which adjoin the Site.

9. A residence is located approximately 500 feet northeast of the Site.

Site Geology/Hydrogeology

10. The following three (3) aquifers exist beneath the surface of the Site: the water table aquifer; the till aquifer and the bedrock aquifer.

11. The water table aquifer is located one to two feet beneath the surface of the Site. The elevation of this aquifer is approximately five feet above the mean elevation of Peach Island Creek which adjoins the Site.

12. The water table aquifer flows through the Site into Peach Island Creek. The estimated average discharge rate of this aquifer from the Site into Peach Island Creek exceeds 300 cubic feet/day.

13. Peach Island Creek is a shallow tidal waterway which flows into Berrys Creek downstream from the Site.

14. The Site receives more than six (6) million gallons of precipitation each year. Some of this influent infiltrates down into the water table and facilitates migration of contaminants out of the FOU zone into Peach Island Creek. This influent also assists in driving contaminants from the water table down into the till aquifer beneath it.

15. The till aquifer is located beneath the water table aquifer. A hydraulic gradient exists between the water table and the till aquifers. This gradient tends to drive fluids and contaminants downwards from the water table aquifer into the till aquifer. The till aquifer flows towards the northwest from the Site.

16. The bedrock aquifer lies beneath the till aquifer. These two(2) aquifers are hydraulically connected.

17. Municipalities in the area use the bedrock aquifer as a source of public water supply. A number of commercial establishments also draw waters from the bedrock aquifer for various purposes.

Site Owners and Operators

18. In 1965, SCTC was incorporated in the State of Delaware for the purposes of dealing with chemicals and their byproducts and treating waste and waste material.

19. In 1966, SCTC registered in the State of New Jersey for the stated purposes of dealing in chemicals and their byproducts and acquiring, treating and disposing of waste of every kind and nature through every method and means whatever.

20. During the late 1960s, SCTC operated an industrial waste handling, treatment, and disposal enterprise at the Site. During the course of its business, SCTC received, handled, treated, stored and disposed of a wide variety of industrial and chemical wastes, including many hazardous substances, pollutants and contaminants, at the Site.

21. On or about October 1970, SCTC ceased its waste operations at the Site.

22. On or about October 1970, SCP acquired the assets and equipment of SCTC at the Site. About this time, SCP also executed a lease with Inmar to occupy the Site. Thereafter, SCP continued waste handling, storage, treatment and disposal

operations at the Site. These operations were the same or similar to those of SCTC, its predecessor at the Site.

23. Throughout the 1970s, SCP handled, treated, stored and disposed of a wide spectrum of industrial wastes at the Site. These wastes included liquids, solids and sludges containing solvents, Polychlorinated Biphenyls ("PCBs"), metals, base neutrals, volatile organic solvents ("VOCs") and numerous other pollutants or contaminants from industrial processes. During these operations, many hazardous substances were released directly onto the soil at the Site and migrated into the underlying aquifers and into Peach Island Creek.

24. In the normal course of its operations, SCP picked up a variety of liquids, solids, sludges and other industrial waste products from customers located in New York, New Jersey, Pennsylvania, Delaware, Connecticut and possibly other states. SCP and/or SCP agents picked up these waste materials in bulk using tanker trucks, in drums or other containers and by other means from facilities owned and/or operated by the SCP clientele. SCP routinely transported the liquids, solids and sludges which it received from its customers to the Site.

25. SCP ceased operations at the Site about 1980.

26. On or about March 7, 1972, SCTC caused its corporate name to be changed from the Scientific Chemical Treatment Company, Inc. to Scientific, Inc.

27. On or about June 17, 1986, Scientific, Inc. caused its corporate name to be changed from Scientific, Inc. to Transtech Industries, Inc.

28. Inmar or one or more of its predecessor corporation(s), including Sparrow Realty, Inc. and Inmar Realty, Inc., held title to some or all of the Site during the late 1960s and throughout 1970s. Inmar is the owner of record and holds title to the Site at present.

Waste Shipments to the Site

29. Air Products & Chemicals, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including RCRA listed waste, dimethyl sulfate and flammable wastes from its facility located in Piscataway, N.J.

30. Air Products & Chemicals, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by

clay, waste xylene and silicon gel from its facility located in Middlesex, N.J.

31. Allied Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including spent alpha pinene liquids, methanol water(a.k.a., Halar water), chloroform, trichlorotrifluoroethane, sodium carbonate, sodium hydroxide, sodium trichloroacetate and potassium carbonate from its facility located in Elizabeth, N.J.

32. Allied Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including phosphoric acid, methanol and methyl phosphate from its facility located in Haledon, N.J.

33. Ashland Chemical Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including resin solution, corrosive waste, butyl phenol, actyl phenol, flammable waste, semi-liquid acrylics, flammable phenolic resins, phenols and solid corrosive butyl from its facility located in Fords, N.J.

34. Ashland Chemical Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including mixed solvents, flammable resin solution, flammable liquids, waste solvents, resin solutions, filter clays and plasticizer, resin, monomer, and elastomer residues from its facility located in Newark, N.J.

35. Ashland Chemical Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey Special waste by manifest, mixed solvents and flammable waste from its facility located in Binghamton, N.Y.

36. Benjamin Moore & Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, mixed solvents, flammable waste, spent mineral spirits, liquid wastes, mixed solvents and flammable wastes from its facility located on Lister Avenue in Newark, N.J.

37. Borden, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including, New Jersey special waste by manifest, mixed solvents, flammable waste, organic solvent mixtures, printing ink pigments, toluol, lactol, ethyl alcohol, ethyl acetate, isopropyl acetate, isopropyl alcohol and printing ink solvent washes from its facility located in Fairlawn, N.J.

38. Borden, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or

contaminants, including dirty organic solvents, toluol, lactol, printing ink solvent washes, ethyl alcohol, ethyl acetate, isopropyl acetate, isopropyl alcohol and nitrocellulose from its Fabric Leather Division facility located in Glen Cove, N.Y.

39. Chemical Pollution Control, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, acid solutions, flammable waste, corrosive waste, ester alcohol, ether, ketones, glycol residues and mixed solvents from its facility located in Bayshore, N.Y.

40. Ciba-Geigy Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, toluene, liquids in tank trucks, sulfuric acid, acetic acid, solvents, alcohols, toluene, IPA and mixed solvents from its facility located in Cranston, R.I.

41. Congoleum Industries, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including dirty solvents, liquids and sludges from its facility located in Marcus Hook, Pa.

42. Custom Chemicals Co., Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, and mixed solvents from its facility located in Elmwood Park, N.J.

43. Delaware Container Co., Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, still bottoms and mixed solvents from its facility located in Chester, Pa.

44. Dri-Print Foils, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, mixed chemicals and liquids from its facility located in Rahway, N.J.

45. E.I. DuPont de Nemours & Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, esters, alcohols, ether, ketones, ethylene glycol and glycol residues from its facility located in Parlin, N.J.

46. E.I. DuPont de Nemours & Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including miscellaneous solvents,

chemical wastes, acid wastes, waste organic dyes, toxic adhesives, toxic waste formic, flammable and toxic waste trylen and waste solvents from its Chestnut Run facility located in Wilmington, Dela.

47. E.I. DuPont de Nemours & Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including aluminum chloride, spent acid, carbon tetrachloride, insecticides, halogenated aliphatics, halogenated aromatics, ketones and aldehydes from its facility located in Grasselli, N.J.

48. E.I. DuPont de Nemours & Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including flammable waste, waste butyl alcohol, acetone, oils and oil sludges, ketones, aldehydes, metyl isobutyl ketone and wastes with a flashpoint below 100 degrees Fahrenheit from its facility located in Willow Bank, Pa.

49. Exxon Company, U.S.A. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including, isopropyl alcohol, spent caustic soda, sodium sulfonate, slop oil emulsion, spent white oil, maleic slop, chlorinated solvents and other wastes classified by the company as "H" for hazardous from its facility located in Bayway, N.J.

50. Exxon Company, U.S.A. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including muriatic acid, spent acid, trimethyl propane, valeric acid, hydrochloric acid, haptenoic acid and caprylic acid from its facility located in Bayonne, N.J.

51. Fitchburg Coated Products Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including, waste chemicals, waste solvents, scrap solvents, waste mixed chemicals and approximately 175,000 gallons of liquid waste.

52. GAF Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, organic wastes, latex residue, oil and oil sludges and emulsions, alkaline solutions, latex waste water, still bottoms, package lab chemicals and acid solutions from its facility located in Johnson City, N.Y.

53. Ganes Chemicals, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, corrosive waste, ignitible waste, pharmaceutical waste, still bottoms, alkaline solutions, mixed solvents and

halogenated organic solvents from its facility located in Pennsville, N.J.

54. General Electric Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, corrosive waste, mixed solvents, scrap water distillates, still bottoms, wire essence, varnish, cyclohexane, xylene, toluene, formaldehyde, cresylic acid, benzoyl peroxide, solvent wastes, acetone, methyl ethyl ketone, epoxy, styrene, naphtha and phenol from its facility located in Schenectady, N.Y.

55. General Motors Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, oil and oil sludges and emulsions from its facility located in Tarrytown, N.Y.

56. Harmon Colors Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, corrosive waste, acid solutions, process liquid wastes, methanol, phosphoric acid and filtrate from production of quinacridone organic pigments from its facility located in Haledon, N.J.

57. Hoffman LaRoche, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including acetone, benzene, toluene, ammonia, sulfates, sodium hydroxide, sodium chloride, sodium acetate, sulfanilic acid and liquid wastes from its facility located in Belvidere-White Township, N.J.

58. Hoffman LaRoche, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including acetone, tar, toluene, toluol, methanol, zinc wastes, alcohols, isopropanol, diethyl sulfate, methylene chloride, ethyl acetate, lithium bromide, lithium hydroxide, pyridene salts, propionic acid, methyl ethyl ketone, isopropyl alcohol, chlorobenzene, zinc salts, mercury, acetic anhydride, xylene, formamide, hydrogen cyanide, hydrogen chloride, solvents, benzyl chloride, heptane, hexane, liquid wastes with hazardous vapors, liquid wastes with explosive hexane vapors, hydrochloric acid, ferrous chloride, triethylamine, petroleum oils, phenol, ethyl alcohol, copper salts, chlorinated waste solvents, methyl chloride, pentane, ethyl ether, aniline, methylene chloride, methylheptanone and liquids with a flash point of 40 degrees Fahrenheit from its facility located in Nutley, N.J.

59. Inmont Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants

or contaminants, including waste resins from its facility located in Belvidere, N.J.

60. Lederle Laboratories arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, combustible liquids, waste methanol, toluene, benzene, butyl alcohol, solvents, alcohols, drummed solvent waste, acetone, hexane, ethyl alcohol, methyl alcohol and miscellaneous wastes from pharmaceutical production operations from its facility located in Pearl River, N.Y.

61. Lederle Laboratories arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including organic wastes and miscellaneous wastes from its facility located in Bound Brook, N.J.

62. Lederle Laboratories arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including, waste solvents and alcohols from its facility located in Danbury, Ct.

63. Lederle Laboratories arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including at least one trial load of miscellaneous waste from its facility located in Stanford, Ct.

64. M & T Chemicals, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, still bottoms, waste solvents and waste water from its facility located in Huntington, N.Y.

65. Marisol, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including methyl ethyl ketone, acetone, kerosene, chloroethane, trichloroethane, naptha and methylene chloride from its facility located in Middlesex, N.J.

66. Merck & Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, mixed waste solvents, and solvents NOI from its facility located in South Danville, Pa.

67. Merck & Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, toxic waste and mixed solvents from its facility located in Rahway, N.J.

68. Merck & Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including acetone and liquid chemicals NOI from its facility located in Elkton, Va.

69. Minnesota Mining & Manufacturing Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including waste solvents, methyl ethyl ketone, toluene, RCRA characteristic hazardous waste (ignitable waste), material contaminated with waste solvents and iron oxide sludges from its facility located in Freehold, N.J.

70. Mobil Chemical Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, paints and pigments, residues, phosphorus, oxychloride, varnish base solvents, cresylic acid, waste hydrocarbons, methyl ethyl ketone, phenols, alpha-olefin, flammable liquids, poisonous waste, corrosive waste, removers, extenders, pigments and fillers from its facility located in Edison, N.J.

71. Nepera, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, corrosive waste, ammonia water, alkaline solution, organic waste, waste waters, liquid wastes, methanol, isopropyl alcohol, sodium hydroxide, organic ammonia water, 2 AP waste water caustic, 2 amino pyridene, 2,6-diamino pyridene, toluene, pyrodine, picoline, picolinonitrile, dimethyl formamide, tar residues, carbon black and oxylinic acid from its facility located in Harriman, N.Y.

72. New England Laminates Co., Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents and waste water from its facility located in Stamford, Ct.

73. Perk Chemical Co., Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, spent flammable waste, NOS waste and liquid waste in tankers from its facility located in Elizabeth, N.J.

74. Permacel arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste and mixed solvents from its facility located in New Brunswick, N.J.

75. Pfizer, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest and flammable waste from its facility located in Groton, Ct.

76. Randolph Products Co. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, still bottoms, alkyd resins, urea resins, melamine resins, pigments, lead and zinc from its facility located in Carlstadt, N.J.

77. Reliance Universal, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, paint and pigment residues, dirty solvents, aliphatic hydrocarbons, aromatic hydrocarbons, xylene, toluene, ketones, esters, alcohols, acetates and paint wastes from its facility located in Somerset, N.J.

78. Revlon, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, esters, alcohols, ethers, ketones, glycol residues, mixed solvents, spent acetone, ignitable waste, 1,1,1-trichloroethane, petroleum naphtha and stillbottoms from its facility located in Edison, N.J.

79. Schenectady Chemicals, Inc. arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, ignitable waste, plasticizers, resins, monomers, waste water, phenols, ignitable liquid resins, waste process liquid distillates and resin manufacturing waste from its facility located at 10th and Congress Street, Schenectady, N.Y.

80. Smithkline Beckman Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including aqueous waste, waste solvents, caustic scrubber water, xylol solvent, drum residues, mercaptan wastes, still residues and CPT solution from its facilities located on Spring Garden Street, Philadelphia, Pa. and Swedeland Road, Upper Merion, Pa.

81. Union Carbide Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including methylene chloride, pilot plant solvent, polysulfone chloride, peroxide, phenols, toluene, resins, waste oils, waste hydrocarbons, acetone, waste solvents, latex residues, elastomer residues, alkaline solutions, catalyst residues, halogenated organics, still bottoms and lab bottles with solvents from its facility located in Bound Brook, N.J.

82. Union Carbide Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including mixed solvents, latex residues and waste latex solids from its facility located in Somerset, N.J.

83. Upjohn Corporation arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including aqueous waste, sodium cyanide and wastes from production of pharmaceuticals from its facility located in North Haven, Ct.

84. Western Electric Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, mixed solvents, waste solvents, butyl carbitol, trichlorethylene, acetone, xylene, isopropyl alcohol, butyl acetone, perchlorethylene, tetramethyl, ammonium hydroxide, methyl pyrrolidine, methylene chloride, cresylic acid, n-butyl acetate, J100 photoresist, dichlorobenzene and chlorinated naphthalenes from its facility located in Allentown, Pa.

85. Western Electric Company arranged with SCP for disposal or transport for disposal of hazardous substances and pollutants or contaminants, including New Jersey special waste by manifest, flammable waste, paint and pigment residues, combustible wastes and solid mixtures from its facility located in Kearny, N.J.

86. Each of the Respondents noted above arranged with SCP for disposal or transport for disposal of hazardous substances, and pollutants or contaminants, from one or more of their facilities at various periods of time during at least various times in the 1970s.

87. Some of the Respondents visited the Site to observe waste handling operations. Some of the Respondents transported liquids, solids and/or sludges, which may have contained hazardous substances, to the Site in vehicles owned and/or operated by themselves or their agents.

88. SCP transported to and disposed of some or all of the hazardous substances, pollutants and contaminants which it received from each of the Respondents, as noted in Paragraphs 29 through 85, above, at the SCP Site.

89. Many of the hazardous substances, pollutants and contaminants removed from each of the Respondents' facilities, as noted in Paragraphs 29 through 85, above, were discovered in soil and groundwater at the Site and in the water column and sediment of Peach Island Creek.

EPA Site Assessment and Response Actions

90. On September 1, 1983, the Site was listed on the National Priorities List 40 CFR Part 300, Appendix B, which was issued pursuant to Section 105(a)(8)(B) of CERCLA, 42 U.S.C. §9605(a)(8)(B).

91. At various times after listing on the NPL, EPA undertook studies at or relating to the Site. A group of potentially responsible parties also undertook studies relating to the Site pursuant to the Consent Order and the Unilateral Order, as noted in Paragraphs 121 and 122, below. The results of those studies revealed that numerous hazardous substances, pollutants and contaminants exist in the soils and groundwater at the Site and in the water column and sediment in Peach Island Creek.

92. Many hazardous substances, pollutants and contaminants were detected in the soils at the Site. (See Attachment 2). Many of the hazardous substances shown on that Attachment are the same or similar to those received by SCP from many of the Respondents, as referred to in paragraphs through above.

93. Many hazardous substances, pollutants and contaminants were detected in the water table aquifer at the Site. (See Attachment 3). Many of the hazardous substances shown on that Attachment are the same or similar to those received by SCP from many of the Respondents, as referred to in paragraphs through above.

94. Many hazardous substances, pollutants and contaminants were detected in the till aquifer at the Site. (See Attachment 4). Many of the hazardous substances shown on that Attachment are the same or similar to those received by SCP from the many of Respondents, as referred to in paragraphs through above.

95. Some hazardous substances, pollutants and contaminants were detected in the bedrock aquifer at the Site. (See Attachment 5). Many of the hazardous substances shown on that Attachment are the same or similar to those received by SCP from many of the Respondents, as referred to in paragraphs through above.

Characteristics of Chemicals Found at the Site

96. None of the VOCs, pesticides, PCBs, and semi-volatile compounds found at the Site originate from natural sources. Many of these chemicals, however, exist at grossly elevated levels at the Site.

97. Many of the chemicals at the Site, for example, PCBs, chloroform, 1,2-dichloroethane, methylene, chloride, and trichloroethylene, are known carcinogens in animals.

98. Many of the chemicals at the Site, for example, PCBs, chloroform, 1,2-dichloroethane, methylene, chloride, and trichloroethylene, are probable or suspected carcinogens in humans.

99. Some of the chemicals at the Site, for example, vinyl chloride, arsenic, and benzene, are known carcinogens.

100. Many of the chemicals at the Site are known to cause acute and/or chronic health effects, other than cancer, in humans who may be exposed to such chemicals.

101. Some of the chemicals at the Site can readily volatilize into the atmosphere under the conditions which prevail at the Site.

102. Many of the chemicals found at the Site are highly mobile in groundwater.

103. Some of the chemicals found at the Site can enhance the mobility of other contaminants in groundwater when mixed with these other contaminants.

104. Many of the chemicals found at the Site are toxic to various aquatic organisms at various levels.

Actual and Potential Migration Into the Groundwater

105. The soils and water table aquifer in the FOU zone are the most highly contaminated media at the Site. They contain a wide array of hazardous substances and pollutants and contaminants which are often found in industrial wastes.

106. Maximum Contaminant Levels ("MCLs") are enforceable drinking water standards which have been established for certain substances under the Federal Safe Drinking Water Act and/or the New Jersey State Safe Drinking Water Act. The purpose of MCLs is to reduce adverse effects on human health when waters are consumed.

107. Many chemicals were detected in the water table aquifer, including various forms of PCBs, nineteen VOCs, semi-volatile compounds and pesticides. (See Attachment 3). Many of these compounds are known or suspected human and/or animal carcinogens. Others are associated with a variety of human health problems.

these compounds are known or suspected human and/or animal carcinogens. Others are associated with a variety of human health problems.

108. Many of the chemicals in the water table aquifer exist at levels which far exceed the applicable MCLs which have been established for such substances. The geometric mean concentration for each of the following contaminants in this aquifer now exceeds the relevant Federal and/or State MCLs established for such contaminants: benzene(a known human carcinogen); chlorobenzene; 1,2,-dichloroethane; 1,2,-trans-dichloroethane; methylene chloride; xylene; vinyl chloride(a known human carcinogen); tetrachloroethylene; 1,1,1-trichloroethylene; and trichloroethylene.

109. Many of the chemicals found in the water table have migrated from the water table down into the till aquifer beneath it. Many of these chemicals now exist in the till aquifer at the levels which exceed the Federal or State MCLs established for such contaminants. The geometric mean concentration for the following contaminants in the till aquifer now exceeds the relevant Federal and/or State MCLs established for these contaminants: chlorobenzene; chloroform; 1,2,-dichloroethane; 1,1dichloroethylene; 1,2,-trans-dichloroethane; methylene chloride; vinyl chloride (a known human carcinogen); tetrachloroethylene; 1,1,1-trichloroethylene; and trichloroethylene.

110. The till aquifer is hydraulically connected to the bedrock aquifer. Pump tests performed by some potentially responsible parties during the RI/FS revealed the hydraulic connection between these two(2) aquifers.

111. Some chemicals have migrated from the water table and till aquifers into the bedrock aquifer under the Site. Some of these chemicals now exist in the bedrock aquifer at levels which exceed the Federal or State MCLs established for such contaminants. The geometric mean concentration of the following contaminants in the bedrock aquifer now exceeds the relevant Federal and/or State MCLs established for these contaminants: chloroform; 1,2,-dichloroethane; trichloroethylene; and vinyl chloride.

112. The bedrock aquifer is being used as a potable water supply by the public in the region.

113. Vinyl chloride is a known human carcinogen. The other three(3) chemicals in Paragraph 111, above, are probable [Class B2] human carcinogens. All four chemicals are in the bedrock aquifer. All four can induce cancer(s) in animals.

114. The presence of the chemicals referred to in Paragraphs 108 through 111 above, has rendered waters in the aquifers under the Site unsuitable for potable purposes.

Actual and Potential Migration Into Peach Island Creek

115. Peach Island Creek is a tidal waterway which adjoins the Site. The water table aquifer at the Site flows into Peach Island Creek.

116. Many hazardous substances, pollutants and contaminants were detected in the water column in Peach Island Creek near the Site. (See Attachment 6). Many of the hazardous substances in the water column are the same or similar to those which exist at the Site. Many of the hazardous substances in the water column are the same or similar to those received by SCP from many of the Respondents as referred to in Paragraphs 29 through 85 above.

117. Many hazardous substances, pollutants and contaminants were detected in the sediment in Peach Island Creek near the Site. (See Attachment 7). Many of the hazardous substances shown on that Attachment are the same or similar to those which exist at the Site. Many of the hazardous substances shown on that Attachment are the same or similar to those received by SCP from the Respondents as referred to in Paragraphs 29 through 85 above.

118. The water table aquifer discharges many chemicals from the Site into Peach Island Creek. Many of these chemicals can be either acutely or chronically toxic to aquatic organisms.

119. Some chemicals entering Peach Island Creek from the Site, e.g., PCBs, are known to be capable of bioaccumulating or biomagnifying in certain aquatic organisms.

EPA Enforcement Actions

120. On or about May 17, 1985, EPA sent general notice letters to all of the Respondents, except for the Hoffman LaRoche Company, informing them of their potential liability relating to the Site.

121. On September 30, 1985, many of the Respondents entered into an Administrative Order on Consent Index No. II-CERCLA-50114 ("the Consent Order") with EPA for the performance of the RI/FS at the Site.

122. On October 23, 1985, some of the Respondents were issued a Unilateral Order Index No. II CERCLA - 60102 ("the Unilateral Order") pursuant to Section 106(a) of CERCLA which mandated that they fully participate in the efforts of, and cooperate with, those parties who entered the Consent Order with EPA for performance of the RI/FS.

123. On October 23, 1985, EPA issued an Administrative Order (Index No. II CERCLA-50115) under Section 106(a) of CERCLA to Inmar, which mandated that Inmar conduct certain response actions at the Site, including removal and proper disposal of some tanks containing hazardous substances, which were located at the Site. Inmar failed to comply with the terms of that order.

124. On January 14, 1987, the United States filed a Complaint against Inmar (Civil Action No. 87-144) in the U.S. District Court in Newark, New Jersey demanding payment of EPA costs and penalties from Inmar ("the Inmar action").

125. On May 2, 1988, a Consent Decree was entered in the U.S. District Court in Newark, New Jersey settling the Inmar action. By its terms, Inmar was required to pay the government \$545,000., including more than \$300,000. in penalties, for settlement of the claims of the government in the Inmar action.

126. In February 1988, EPA sent general notice letters to nineteen (19) additional potentially responsible parties for the Site, including the Hoffman LaRoche Company, informing them of their potential liability relating to this Site.

127. On or about March 1990, EPA received Final RI/FS documents from the potentially responsible parties who participated in performing the RI/FS studies under the Consent Order and Unilateral Order.

128. On May 19, 1990, EPA, pursuant to Section 117 of CERCLA, 42 U.S.C. §9617, published the Proposed Plan for the Interim Remedy and published notice of the availability of the draft RI/FS Report and the Administrative Record for the Interim Remedy. EPA also informed the public that it had an opportunity to comment on the Proposed Plan. On June 5, 1990, EPA held a public meeting in Carlstadt, New Jersey concerning the Interim Remedy.

129. On September 14, 1990, EPA issued the ROD which described and selected the Interim Remedy for the Site.

130. In September 1990, EPA issued letters to all of the potentially responsible parties for the Site, including all of the Respondents, which informed them of the decision by EPA not to utilize the special notice procedures set forth in Section 122(e) of CERCLA, 42 U.S.C. §9622(e), for matters relating to the implementation of the Interim Remedy at the Site. This letter also provided the reasons for that EPA decision.

131. On September 17, 1990, EPA formally notified the State of New Jersey that it intended to issue an Administrative Order to the Respondents to perform the Interim Remedy at the Site.

CONCLUSIONS

132. Each Respondent is a "person" within the meaning of that term as defined in Section 101(21) of CERCLA, 42 U.S.C. §9601(21).

133. The Site is a "facility" within the meaning of that term as defined in Section 101(9) of CERCLA, 42 U.S.C. §9601(9).

134. Many of the chemicals and contaminants identified in the FINDINGS section, above, and detected at the Site, as shown in Attachments 2 through 7, are "hazardous substances" within the meaning of that term as defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14).

135. The disposal of hazardous substances at the Site, the presence of hazardous substances in the soil and the subsequent migration of hazardous substances from the soils into the aquifers beneath the Site and the potential migration of all such substances away from the Site as described in the FINDINGS, are "releases" and "threatened releases" within the meaning of those terms as they are defined in Section 101(22) of CERCLA, 42 U.S.C. §9601(22).

136. Each such release of each hazardous substance from the Site referenced in Paragraph 135 above, is also an "actual . . . release of a hazardous substance from a facility" as that phrase is used in Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

137. The potential for further migration of hazardous substances from the Site into the aquifers beneath the Site and the potential migration of each such substance away from the Site constitutes a "threatened release of a hazardous substance from a facility" within the meaning of that phrase as it is used in Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

138. The release of hazardous substances into the soil and their subsequent migration into the groundwater pose a threat to human health. The potential for such contaminated groundwater to migrate further from the Site poses a threat to public and private wells downgradient of the Site. The construction of residences or commercial establishments and installation of new public or private wells near the Site would increase this threat to human health.

139. Each Respondent is a person who is liable under one or more subsections of Section 107(a) of CERCLA, 42 U.S.C. §9607(a), for conditions at the Site and for response costs incurred by EPA relating to the Site.

DETERMINATIONS

140. Based upon the FINDINGS set forth above, EPA has determined that the release and threatened release of hazardous substances into the environment at and from the Site may present an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. §9606(a).

141. A response action of the type contemplated by the NCP in 42 C.F.R. §300.435 is required at the Site to prevent and/or mitigate any actual and/or potential threat of harm to human health or welfare or the environment caused by the release and threatened release of hazardous substances from the Site.

142. The response actions described in and which are the subject of the ROD are cost effective and are consistent with achieving a permanent remedy at the Site and are consistent with all other requirements of Section 121 of CERCLA, 42 U.S.C. §9621.

ORDER

143. Based on the foregoing FINDINGS, CONCLUSIONS and DETERMINATIONS, it is hereby ordered that Respondents undertake and complete all response actions needed to implement all components of the Interim Remedy for the Site, including installation of a slurry wall around the Site, extraction of groundwater from the FOU zone and off-Site disposal of the extracted groundwater, in accord with all of the terms, provisions and schedules stated in the Statement of Work ("SOW"), in this Order and in all Attachments hereto. It is further ordered that the Respondents, at a minimum undertake and complete each of the following specific components of the Interim Remedy:

- a. Installation of a slurry wall along the perimeter of the entire 5.9 acre SCP Site which will extend from the surface of the Site, down into the clay-silt layer located at the lower boundary of the FOU zone (approximately 15 to 20 feet below the surface of the Site);
- b. Installation of a groundwater collection and extraction system in the FOU zone which will be capable of lowering and maintaining the water table in this zone at the lowest practicable level;
- c. Extraction of groundwater from the FOU zone to achieve and continuously maintain the water level in this zone at the lowest practicable level;

- d. Transportation of all groundwater extracted from the FOU zone to an appropriate facility (or facilities) located off Site;
- e. Proper treatment and disposal of all groundwater extracted from the FOU zone at an appropriate facility (or facilities) located off Site;
- f. Installation of a temporary infiltration barrier across the entire surface of the Site which will be capable of minimizing the entry of precipitation into the FOU zone;
- g. Operation and maintenance of the groundwater collection and extraction system, and maintenance of the infiltration barrier and maintenance of the slurry wall surrounding the Site to ensure continued achievement of the objectives of the Interim Remedy identified in the ROD;
- h. Maintenance of fencing and provision of other Site security measure(s), as deemed necessary by EPA, until such time that the final remedy is in place; and
- i. Implementation of a program for groundwater and surface water monitoring to measure the presence within and the potential migration of hazardous substances from the FOU zone, until such time that the final remedy is in place.

144. Each Respondent must undertake and complete the response actions listed in Paragraph 143, above, and any and all activities required of the Respondents under the terms of this Order as a joint effort.

145. Each Respondent shall advise EPA, in writing, of its commitment to comply with the terms of this Order within seven (7) calendar days of the effective date of this Order.

146. Within fourteen (14) days of the effective date of this Order, the Respondents shall designate a person who shall be known as the Facility Coordinator and who shall be a professional engineer licensed by the State of New Jersey. The Respondents shall submit the name, title, address and telephone number of the Facility Coordinator and a description of the person's professional experience and qualifications for this position in writing to the EPA Project Manager for the Site and the state contact in this Order. The Facility Coordinator shall have sufficient technical and managerial expertise and shall be qualified to adequately oversee and manage all aspects of the work contemplated by this Order.

147. The Facility Coordinator shall be responsible for oversight of the implementation of this Order, including all

activities required herein. He shall also be the primary contact person for communications with EPA and State technical personnel. All communications transmitted by EPA to the Facility Coordinator shall be deemed received and be notice to the Respondents.

148. EPA reserves the right to reject any Facility Coordinator proposed by the Respondents, if it judges the person to be unqualified for that position. In that event, EPA will notify Respondents in writing and establish a time period in which the Respondents shall submit the name and qualifications of a new candidate.

149. Copies of all correspondence and writings from EPA to the Respondents shall be directed to the Facility Coordinator. The Facility Coordinator shall not be an attorney nor shall he or she be a legal counsel for or providing any legal services of any type for any one or more of the Respondents. A qualified Facility Coordinator shall be available for contact by EPA throughout all phases of the Work required by this Order and until all the actions required by this Order are completed.

150. The Respondents shall initiate implementation of the SOW requirements on the date that this Order becomes effective. The SOW requires, among other things, that the Respondents' submit plans and reports for EPA review and approval.

151. The Respondents shall submit to EPA and the State of New Jersey monthly written progress reports by the tenth day of each month following the effective date of this Order. For each calendar month, or part thereof, the monthly progress reports shall include, at least, the following:

- a. A description of all actions which have been taken toward achieving compliance with this Order during the prior month;
- b. A description of any violations of this Order and other problems encountered during the prior month;
- c. A description of all corrective actions taken in response to any violations or problems which occurred during the prior month;
- d. The results of all sampling, test results and other data received or generated by the Respondents during the course of implementing the Work during the prior month. Such results shall be validated in accordance with the approved Quality Assurance Project Plan developed in conformance with the SOW;
- e. A description of all plans, actions and data which are scheduled for the next two months;

- f. A quantified estimate of the percentage of the work required by this Order which has been completed as of the date of the progress report, and
- g. An identification of all delays encountered or anticipated that may affect the future schedule for performance of the Work, and all efforts made by Respondents to mitigate delays or anticipated delays.

152. If EPA approves any plan, report or other submission required by this order, EPA will so inform the Respondents in writing. Any approval by EPA of any plans, reports or other submissions which are not in writing shall not be effective or binding upon EPA.

153. If EPA disapproves any plan, report or other item required to be submitted to EPA for approval pursuant to this Order, Respondents shall have fourteen (14) days from the receipt of notice of such disapproval to correct any deficiencies and resubmit the plan, report or other item for approval, unless a longer period is specified in the notice. Respondents must address each of EPA's comments and resubmit the revised plan, report or other item along with the required changes to EPA within the period set forth above.

154. In the event any comment on any report required pursuant to this Order is not adequately addressed by Respondents in the subsequent submittal, the Respondents shall be deemed in violation of this Order.

155. In the event that a subsequent submittal or portion thereof is disapproved, EPA retains the right to amend or develop the submittal. The Respondents shall implement any such submittal as amended or developed by EPA. Notwithstanding any notice of disapproval, the Respondents shall, to the extent required by EPA, proceed to take all actions required by the nondeficient portions of the submission.

156. Respondents shall provide the EPA Project Manager at least seven (7) days advance notice of the commencement of any field activities undertaken pursuant to the terms of this Order at the Site .

GENERAL PROVISIONS

157. a. All work plans, reports and any other documents required to be submitted to EPA under this Order shall be sent by mail to the following addresses:

157. a. All work plans, reports and any other documents required to be submitted to EPA under this Order shall be sent by mail to the following addresses:

4 copies: Chief, New Jersey Compliance Branch
Emergency and Remedial Response Division
EPA Region II
26 Federal Plaza - Room 747
New York, N.Y. 10278

Att: Project Manager - SCP Carlstadt Site

4 copies: Chief, Bureau of Federal Case Management
Division of Hazardous Waste Management
N.J. Department of Environmental Protection
401 East State Street
Trenton, New Jersey 08625

Att: Case Manager - SCP Carlstadt Site

b. In the event that EPA requests from the Respondents additional copies of any work plan, report or other document, the Respondents shall provide a reasonable number of copies, as requested.

158. All documents produced by the Respondents and submitted to EPA in the course of implementing this Order shall be available to the public unless Respondents claims they are confidential using the procedures described in 40 C.F.R. Part 2. If such a claim is made with regard to any of the records or any other documents produced by the Respondents or their contractors, EPA will release such documents in accordance with the procedures stated in 40 C.F.R Part 2, Subpart B and Section 104(e)(7) of CERCLA, 42 U.S.C. §9604(e)(7). No sampling, hydrological, geological, soil chemical analyses, groundwater quality data, or information specified under Section 104(e)(7)(F)(i)-(viii) of CERCLA, 42 U.S.C. §9604(e)(7)(F), relating to the Site shall be considered confidential.

159. The Respondents shall allow EPA, EPA contractors and agents, and DEP and DEP contractors and agents to have access to all records relating to implementation of the work under this Order. All such records shall be stored at a location in the State of New Jersey which is accessible to EPA officials. The Respondents shall make all such records available for any EPA official to review and copy within three days after receiving a request from EPA for access to such records. All employees and contractors of the Respondents who engage in any activity under this Order shall be available to and shall cooperate with EPA and EPA agents and contractors.

the Respondents shall provide the EPA Project Manager, in writing, with the name and address of the person who will be charged with retaining these records and the location in which the records will

be kept during this ten year period. Any and all such records are to be made available to EPA upon request during any business day throughout that period of time.

161. The Respondents shall allow unimpeded access to all areas of the Site and into all structures thereon by all EPA and DEP representatives, agents, contractors and consultants. The Respondents shall permit such EPA and DEP agents to enter and move about the Site at will at all times and shall allow such officials or agents of EPA and DEP to undertake any observations, response actions or any other activities which EPA elects to undertake at the Site at EPA's option.

162. a. The Respondents shall use their best efforts to obtain all access agreements which are needed to implement the terms of this Order. "Best efforts" includes, but is not limited to, reasonable efforts to identify, locate and contact (in writing) the owner of the property, seeking judicial assistance, and paying money in consideration of access.

b. If, after such best efforts, the Respondents cannot obtain a particular access agreement which is required for implementation of the terms of this Order, the Respondents shall so notify the EPA Project Manager in writing and shall specify the real property in question and the efforts which the Respondents have taken to obtain entry onto the property in question. If EPA determines that access onto any such property is needed to implement any of the terms of this Order, EPA will make reasonable efforts to facilitate access by the Respondents to that property. However, the Respondents shall continue to implement all other terms of this Order which, in the view of EPA, can still be implemented regardless of the failure to obtain access to any property.

163. All reports, schedules, deliverables and other writings required under the terms of this Order shall, upon approval by EPA, be deemed incorporated into this Order and may be enforced as any other provision in this Order.

164. No informal advice, guidance, suggestions or comments by EPA or DEP officials shall be construed to relieve Respondents of any of their obligations under this Order.

165. All contractors and subcontractors the Respondents plan to use for work at the Site must have adequate liability coverage or must be indemnified by the Respondents for any and all liability which may result from any activities at and on the Site pursuant to this Order.

166. The Respondents may request that EPA approve modifications to EPA-approved reports, schedules, deliverables and other writings required under the terms of this Order at any time during the implementation of the work required by this Order. Any and all such modifications to this Order must be approved in a writing signed by the Chief of the New Jersey Compliance Branch, EPA-Region II.

- a. EPA shall have sole authority to make any such modifications and EPA may unilaterally make any such modifications at any time prior to the completion of all work required by this Order.
- b. EPA alone shall be the final arbiter of all issues and disputes concerning: i) any reports, schedules, deliverables and other writings required under the terms of this Order which EPA approves or which the Respondents proposes under the terms of this Order, and ii) all work which shall be required or performed under this Order and/or under any reports, schedules, deliverables and other writings required under the terms of this Order which EPA approves pursuant to the terms of this Order.

167. All work conducted pursuant to this Order shall be performed in accordance with prevailing professional standards.

168. All activities carried out by the Respondents pursuant to this Order shall be done in accordance with all applicable Federal, state and local laws, regulations, ordinances and other requirements.

169. All activities conducted by the Respondents pursuant to this Order shall comply with the requirements of CERCLA, the NCP, and all applicable OSHA regulations for worker health and safety as found in 29 C.F.R. §1910 et seq., and elsewhere.

170. All disposal of material conducted by the Respondents pursuant to performing any work under this Order shall comply with all provisions of the Solid Waste and Disposal Act, 42 U.S.C. §6901 et seq., the Toxic Substances Control Act ("TSCA"), 15 U.S.C. §2601 et seq., all regulations promulgated pursuant to both RCRA and TSCA and all applicable State laws and regulations.

171. The Respondents shall be responsible for obtaining all necessary Federal, State and local permits, licenses and other authorizations needed to carry out the work required by this Order.

172. The United States Government and any and all agencies thereof shall not be liable for any injury or damage to any person or property resulting from any acts or omissions of the

Respondents and any employees, contractors, or agents of the Respondents while performing any activity related to this Order; the United States Government and any and all agencies thereof shall not be a party to any contract entered into by Respondents in carrying out any activity pursuant to this Order, and the Respondents shall not represent to anyone that the United States Government or any agency thereof is or may be a party to any such contract.

173. The Respondents shall use their best efforts to avoid or minimize any delay or prevention of performance of its obligations under this Order.

174. Upon the completion of all of the work required by this Order, the Facility Coordinator designated by the Respondents shall notify the EPA Project Manager and the state contact in writing by registered mail that all of the work and construction activities required by this Order have been completed.

175. Any failure by the Respondents to carry out any terms of this Order may result in EPA unilaterally taking or funding the actions required under this Order, pursuant to Section 104 of CERCLA, 42 U.S.C. §9604.

176. Any failure by the Respondents to comply with any provision in this Order or any provision or schedule in the SOW pursuant to the terms of this Order, including, but not limited to, any of the following acts or omissions will be considered a violation of this Order:

- a. Failure to identify a qualified Facility Coordinator to EPA within fourteen (14) days of the effective date of this Order; or
- b. Failure to submit a signed written commitment to perform the work required by this Order to EPA within seven (7) calendar days of the effective date of this Order; or
- c. Failure to comply with any schedule(s) stated in this Order or established pursuant to this Order;

177. If the Respondents fail to perform any of the actions set forth in this Order, or otherwise violates the terms of this Order, EPA may elect to:

- a. Demand that the Respondents cease work at the Site; and/or
- b. Use Federal funds to complete the work required by the Order; and/or

- c. Initiate an action against the Respondents under Sections 106(b), 107(a) and/or 107(c) of CERCLA, 42 U.S.C. §§9606(b), 9607(a), and/or 9607(c), respectively; and/or
- d. Take any other actions authorized under Federal laws or regulations.

178. Nothing stated in this Order shall preclude EPA from taking any additional enforcement actions, and/or any actions as it may deem necessary for any purpose, including the prevention or abatement of an imminent and substantial endangerment to the public health or welfare or the environment arising at or in the vicinity of the Site.

179. Nothing contained in this Order shall affect the right of EPA to initiate an action for civil penalties against any entity, including the Respondents, pursuant to Section 106(b) of CERCLA, 42 U.S.C. §9606(b).

180. Nothing contained in this Order shall affect the right of EPA to pursue an action against any entity, including the Respondents (or any other responsible party), pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a), for recovery of any costs incurred by EPA relating to this Order and/or for any other response costs which have been incurred or will be incurred by the United States relating to the Site.

181. Nothing contained in this Order shall affect the right of EPA to enter into any Consent Decree, to issue any Consent Order or to issue any other Orders unilaterally to the Respondents (or to any other responsible parties for the Site) pursuant to CERCLA, or to require the performance of any additional response actions which EPA determines are necessary for the Site.

182. Nothing contained in this Order is intended to indicate that other potentially responsible parties identified by EPA for the Site should not participate and/or fund and cooperate with the Respondents in performing the work required by this Order.

183. Nothing contained in this Order shall act as a bar to, a release of, a satisfaction of, or a waiver of any claim or cause of action which EPA has at present or which EPA may have in the future against any entity, including the Respondents, on any matters relating to the Site.

184. Nothing contained in this Order shall be construed to mean that the Respondents are the only potentially responsible parties with respect to the release and threatened release of hazardous substances at the Site.

185. Nothing contained in this Order shall affect any right, claim, interest, defense, or cause of action of EPA or the Respondents with respect to any entity which is not a party to this Order. Nothing in this Order constitutes a decision by EPA on preauthorization or on any approval of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. §9611(a)(2).

186. Nothing contained in this Order shall preclude the State of New Jersey or any agency or department thereof from taking or maintaining any enforcement action or litigation relating to the Site, including issuing any directive pursuant to State law relating to the Site.

OPPORTUNITY TO CONFER

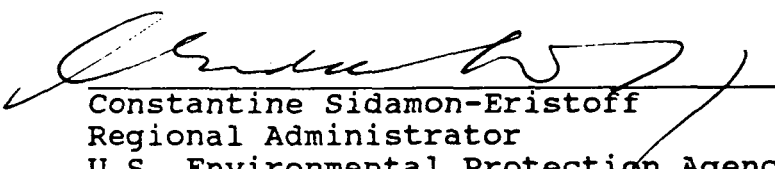
187. The Respondents may confer with EPA to discuss this Order, including its applicability, the FINDINGS upon which the Order is based, the appropriateness of any action or activity required to be undertaken herein, or any other relevant issues or contentions which the Respondents may have with regard to this Order. A conference date has tentatively been scheduled as noted in the transmittal letter which accompanies this Order. Any rescheduling of the conference date must be such that the conference occurs before the effective date of this Order. This conference is not and shall not be deemed to be an adversary proceeding or part of a proceeding to challenge this Order.

EFFECTIVE DATE

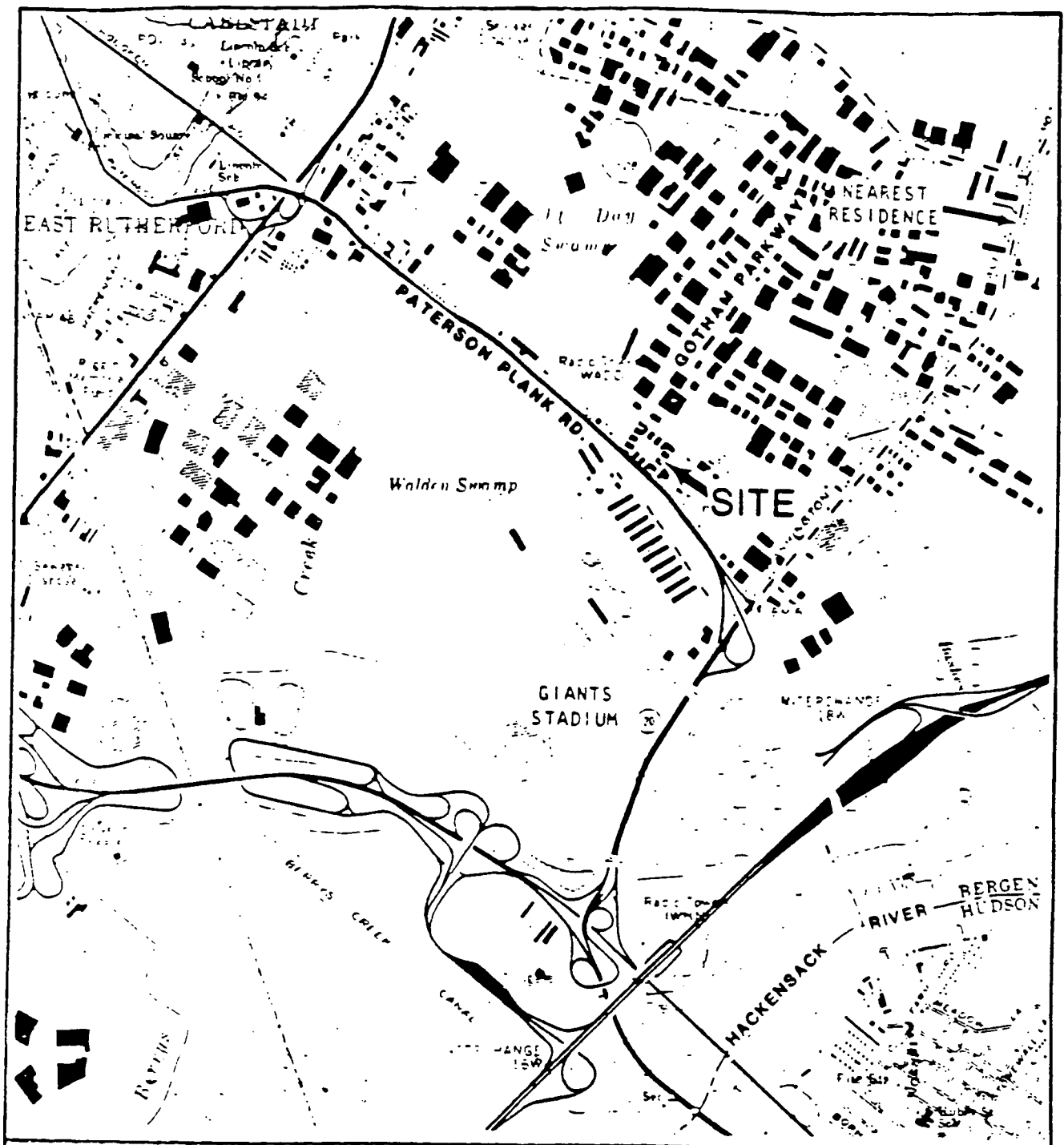
188. This Order shall become effective at 12:01 AM on the 18th day of October 1990.


IT IS SO ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY


Constantine Sidamon-Eristoff
Regional Administrator
U.S. Environmental Protection Agency
Region II
New York, New York 10278

DATE: 9/28/90






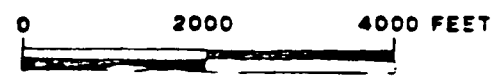
NEW JERSEY
QUADRANGLE LOCATION

SITE LOCATION MAP

SCP SITE

CARLSTADT, NEW JERSEY





0 2000 4000 FEET

REFERENCE:
 U.S.G.S. 7.5' QUADRANGLE:
 WEEHAWKEN, N.J., N.Y., 1967.
 PHOTO REVISED 1981

DAMES & MOORE

TABLE 1

SUMMARY OF CHEMICAL CONCENTRATIONS
IN SHALLOW SOIL (0-2') SAMPLES

CHEMICAL (Concentration Units)	FREQUENCY OF DETECTION	MAXIMUM DETECTED CONCENTRATION	GEOMETRIC MEAN CONCENTRATION
Volatile Organic Compounds (ug/kg)			
Benzene	4/17	53,900	90
Chlorobenzene	4/17	336,000	128
Chloroform	4/17	17,800	44
1,1-Dichloroethane	2/17	64,700	72
1,2-Dichloroethane	4/17	10,200	60
1,1-Dichloroethylene	2/17	182	10
1,2-trans-Dichloroethylene	5/17	241	9
Ethylbenzene	7/17	652,000	384
Methyl ethyl ketone	2/17	8,560	104
Methylene chloride	11/17	2,390	143
1,1,2,2-Tetrachloroethane	1/17	476	NC
Tetrachloroethylene	12/17	4,290,000	934
Toluene	8/17	3,380,000	739
1,1,1-Trichloroethane	1/17	1,228	NC
1,1,2-Trichloroethane	2/17	1,810	31
Trichloroethylene	12/17	2,060,000	270
m-Xylene	7/17	2,000,000	734
o-p-Xylenes	9/17	1,450,000	825
Semi-Volatile Compounds (ug/kg)			
Acenaphthene (NC)	9/17	2,700	359
Anthracene (NC)	9/17	3,910	392
Benzo(a)anthracene (C)	5/17	4,540	1,040
Benzo(a)pyrene (C)	9/17	9,390	836
Benzo(b)fluoranthene (C)	6/17	17,700	1,990
Benzo(g,h,i)perylene (NC)	6/17	6,950	851
Benzo(k)fluoranthene (C)	1/17	3,790	NC
Bis-(2-ethylhexyl)phthalate	17/17	281,000	33,600
Butyl benzyl phthalate	8/17	48,304	1,540
2-Chloronaphthalene	2/17	122,000	174
Chrysene (C)	11/17	5,500	753
Dibenzo(a,h)anthracene (C)	3/17	2,400	693
1,2-Dichlorobenzene	8/17	47,300	543
2,4-Dichlorophenol	1/17	1,102	NC
2,4-Dimethylphenol	2/17	1,120	188
Diethylphthalate	1/17	4,994	NC
Di-n-butyl phthalate	13/17	71,000	3,080
Di-n-octyl phthalate	6/17	9,050	1,570
Fluoranthene (NC)	16/17	15,300	1,850
Fluorene (NC)	8/17	6,909	428
Indeno-(1,2,3-c,d)pyrene (C)	6/17	12,100	1,010
Naphthalene (NC)	16/17	102,000	2,020
Nitrobenzene	1/17	78,299	NC
N-Nitrosodiphenylamine	3/17	2,980	245
Phenanthrene (NC)	13/17	15,300	2,120
Phenol	4/17	58,200	145
Pyrene (NC)	15/17	12,700	1,800
1,2,4-Trichlorobenzene	2/17	1,228	152

TABLE 1 (Continued)

SUMMARY OF CHEMICAL CONCENTRATIONS
IN SHALLOW SOIL (0-2') SAMPLES

CHEMICAL (Concentration Units)	FREQUENCY OF DETECTION	MAXIMUM DETECTED CONCENTRATION	GEOMETRIC MEAN CONCENTRATION
Pesticides/PCBs (ug/kg)			
Aldrin	3/17	57,000	44
Dieldrin	5/17	57,000	170
PCBs:			
Aroclor 1242	11/17	15,000,000	2,680
Aroclor 1248	4/17	23,000	345
Aroclor 1260	2/17	48,000	351
Aroclor 1254	3/17	12,000	579
Inorganic Chemicals (mg/kg)			
Antimony	3/17	16	3.8
Arsenic	14/17	60	8.1
Beryllium	17/17	26	0.56
Cadmium	17/17	95.1	6.1
Chromium	17/17	721	78.5
Copper	17/17	71,600	2,320
Cyanide	16/17	5.02	1.85
Lead	17/17	2,750	490
Mercury	17/17	21.3	1.4
Nickel	15/17	39	12.2
Selenium	5/17	4.9	0.49
Silver	7/17	19	1.1
Zinc	17/17	4,170	398

ND = Not detected.

NC = Not calculated since chemical was detected in only one sample.

(C) = Carcinogenic PAHs.

(NC) = Noncarcinogenic PAHs.

TABLE 2

SUMMARY OF CHEMICAL CONCENTRATIONS
IN MEDIUM DEPTH (5-6') SOIL

Chemical (Concentration Units)	Frequency of Detection	Maximum Detected Concentration	Geometric Mean Concentration
Volatile Organic Compounds (ug/kg)			
benzene	8/17	52,300	621
chlorobenzene	7/17	258,000	887
chloroform	2/17	379,000	257
1,1 - dichloroethane	3/17	179,000	461
1,2 - dichloroethane	4/17	290,000	413
1,2 - trans-dichloroethylene	5/17	512,000	288
ethylbenzene	15/17	529,000	4,330
methyl ethyl ketone	5/17	795,000	1,300
methylene chloride	8/17	14,900	565
1,1,2,2 - tetrachloroethane	1/17	703	NC
tetrachloroethylene	12/17	1,690,000	2,760
toluene	16/17	2,270,000	15,700
1,1,1 - trichloroethane	3/17	1,770,000	473
1,1,2 - trichloroethane	1/17	15,700	NC
trichloroethylene	8/17	1,670,000	856
vinyl chloride	1/17	28.9	NC
m-xylene	16/17	1,580,000	12,200
o+p - xylenes	16/17	710,000	10,500
Semi-Volatile Compounds (ug/kg)			
acenaphthene (NC)	8/17	21,200	443
acenaphthylene (NC)	1/17	21,000	NC
anthracene (NC)	7/17	2,950	474
benzidine	1/17	244,000	NC
benzo(a)anthracene (C)	5/17	84,200	1,200
benzo(a)pyrene (C)	7/17	108,000	649
benzo(b)fluoranthene (C)	6/17	164,000	1,730
benzo(g,h,i)perylene (NC)	5/17	73,300	671
bis (2-ethylhexyl)phthalate	14/17	381,000	14,400
butylbenzylphthalate	6/17	73,600	1,990
2 - chloronaphthalene	4/17	18,200	282
chrysene (C)	7/17	106,000	633
1,2 - dichlorobenzene	6/17	385,000	499
diethyl phthalate	1/17	28,500	NC
2,4 - dimethylphenol	3/17	10,800	382
di-n-butyl phthalate	6/17	98,200	1,750
di-n-octyl phthalate	5/17	19,500	1,190
fluoranthene (NC)	13/17	176,000	1,460
fluorene (NC)	9/17	94,100	549

TABLE 2 (Continued)

SUMMARY OF CHEMICAL CONCENTRATIONS
IN MEDIUM DEPTH (5-6') SOIL

Chemical (Concentration Units)	Frequency of Detection	Maximum Detected Concentration	Geometric Mean Concentration
Semi-Volatile Compounds (ug/kg) (continued)			
indeno(1,2,3-c,d)pyrene (C)	4/16	86,900	697
naphthalene (NC)	14/17	480,000	1,690
nitrobenzene	1/17	1,350,000	NC
N-nitrosodiphenylamine	1/17	157	NC
phenanthrene (NC)	9/17	268,000	1,960
phenol	4/17	790,000	405
pyrene (NC)	12/17	118,000	1,130
1,2,4 - trichlorobenzene	2/17	4,930	222
Pesticides/PCBs (ug/kg)			
aldrin	1/14	1,200	NC
dieldrin	3/13	940	23
methoxychlor	1/17	150,000	NC
PCBs:			
Aroclor 1242	12/17	350,000	1,330
Aroclor 1248	2/17	9,700	84
Aroclor 1254	3/15	3,500	185
Aroclor 1260	2/17	10,000	179
Inorganic Chemicals (mg/kg)			
antimony	4/17	38	4.5
arsenic	15/17	62	7.8
beryllium	17/17	1.3	0.49
cadmium	16/17	26	3.9
chromium	17/17	542	57
copper	17/17	8,600	431
cyanide	9/17	0.032	0.001
lead	17/17	2,810	271
mercury	16/17	13.6	0.75
nickel	17/17	116	29
selenium	3/17	2.1	0.45
silver	1/17	40	NC
zinc	17/17	1,870	338

ND - Not detected.

NC - Not calculated since chemical was detected in only one sample.

(C) - Carcinogenic PAH.

(NC) - Noncarcinogenic PAH.

CONCENTRATIONS OF CHEMICALS DETECTED IN THE WATER
TABLE AQUIFER AT THE SCP SITE

(UNFILTERED SAMPLES)

Chemical	Frequency of Detection (a)	Concentration (ug/l)	
		Geometric Mean (b)	Maximum Detected Value (b)
Volatile Compounds			
Benzene	10/14	318	7,270
Chlorobenzene	3/14	9.8	4,020
Chloroethane	1/14	NC	2,420
Chloroform	4/14	38.1	614,000
1,1-Dichloroethane	8/14	86.5	11,700
1,2-Dichloroethane	4/14	33.9	473,000
1,1-Dichloroethylene	1/14	NC	32
1,2-trans-Dichloroethylene	12/14	2,270	64,700
Ethylbenzene	6/14	35.9	3,900
Methylene Chloride	10/14	522	200,000
Methyl ethyl ketone	5/14	168	2,000,000
1,1,2,2-Tetrachloroethane	4/14	17.0	7,350
Tetrachloroethylene	3/14	16.2	24,500
Toluene	14/14	10,500	90,900
1,1,1-Trichloroethane	7/14	58.8	81,200
Trichloroethylene	8/14	365	161,000
Vinyl Chloride	9/14	106	7,290
m-Xylene	6/14	49.2	20,400
o + p-Xylenes	8/14	123	15,200
Semi-Volatile Compounds			
Total CPAHs (c)	2/14	6.8	379.5
Total MCPAHs (d)	13/14	30.7	2706.9
bis(2-Chloroethyl)ether	2/14	11.1	1,390
bis(2-Ethyl hexyl)phthalate	5/14	17.1	654
Butyl benzyl phthalate	1/14	NC	10.4
2-Chloronaphthalene	1/14	NC	18.9
2-Chlorophenol	2/14	5.9	17.8
1,2-Dichlorobenzene	12/14	34.8	192
2,4-Dichlorophenol	2/14	9.1	463
Diethyl phthalate	2/14	7.4	416
2,4-Dimethyl phenol	11/14	53.9	1,090
Dimethyl phthalate	1/14	NC	316
Di-n-butyl phthalate	2/14	7.2	318
Isophorone	5/14	26.3	8,450
Nitrobenzene	4/14	65.0	57,900
2-Nitrophenol	1/14	NC	4.73
Phenol	14/14	510	17,100
Pesticides/PCBs			
Beta-BHC	1/14	NC	0.56
Total DDT and compounds	3/14	0.09	1.7
Endrin aldehyde	2/14	0.09	15.0
Endosulfan I	1/14	NC	0.25
Endrin	1/14	NC	0.65
Total PCBs (e)	6/14	1.9	17,000
Inorganics			
Arsenic	10/14	30.7	3,100
Beryllium	4/14	1.2	4.3
Cadmium	4/14	3.5	16
Chromium	7/14	26.3	450
Copper	14/14	34.1	1,580
Cyanide	11/14	0.07	4.52
Lead	5/14	14.3	1,500
Mercury	10/14	0.49	4.4
Nickel	12/14	55.5	180
Zinc	14/14	92.4	2,970

(a) Frequency of detection based on 14 samples, two from each sampling station.

(b) Geometric means and maximums were calculated after the geometric mean of the two samples from each station were calculated. The listed maximum is, however, the maximum value detected in any sample.

(c) CPAHs = Carcinogenic PAHs. Those detected in groundwater were: benzo(a)pyrene, chrysene, fluorene and fluorene.

(d) MCPAHs = Noncarcinogenic PAHs. Those detected in groundwater were: acenaphthene, acenaphthylene, anthracene, naphthalene, phenanthrene and pyrene.

(e) Includes all Aroclors detected at site 11242).

NC = Not calculated since chemical was detected in only one sample.

CONCENTRATIONS OF CHEMICALS DETECTED IN THE
TILL AQUIFER AT THE SCP SITE

(UNFILTERED SAMPLES)

Chemical	Frequency of Detection (a)	Concentration (ug/l)	
		Geometric Mean (b)	Maximum Detected Value (b)
Volatile Compounds			
Chlorobenzene	2/6	4.6	39.7
Chloroform	5/6	324	28,600
1,1-Dichloroethane	1/6	NC	27
1,2-Dichloroethane	5/6	144	9,230
1,1-Dichloroethylene	3/6	17.3	313
1,2-trans-Dichloroethylene	3/6	11.6	190
Methylene Chloride	6/6	101	1210
Tetrachloroethylene	4/6	26.7	996
Toluene	2/6	3.1	10.1
1,1,1-Trichloroethane	4/6	29.5	417
Trichloroethylene	6/6	410	16,400
Vinyl Chloride	1/6	NC	54.3
Semi-Volatile Compounds			
1,2-Dichlorobenzene	2/6	5.4	7.46
Nitrobenzene	3/6	7.2	23.3
Phenol	1/6	NC	2.16
Pesticides/PCBs			
Total PCBs (c)	1/6	NC	1.8
Inorganics			
Copper	1/6	NC	19
Zinc	5/6	29.5	57

(a) Frequency of detection based on 6 samples, two from each of the three sampling stations.

(b) Geometric means and maximums were calculated after the geometric mean of the two samples from each station were calculated. The listed maximum is, however, the maximum value detected in any sample.

(c) Includes all Aroclors detected at site.

NC = Not calculated because chemical was detected in only one sample.

Attachment 5

CONCENTRATIONS OF CHEMICALS DETECTED IN THE BEDROCK AQUIFER
AT THE SCP SITE

(UNFILTERED SAMPLES)

Chemical	Frequency of Detection (a)	Concentration (ug/l)	
		Geometric Mean	Maximum Detected Value
Volatile Compounds			
Chloroform	2/2	670	830
1,2-Dichloroethane	2/2	420	460
1,1-Dichloroethylene	1/2	NC	2
1,2-trans-Dichloroethylene	1/2	NC	3
Methylene chloride	1/2	NC	21
Tetrachloroethylene	1/2	NC	2
Toluene	1/2	NC	15
1,1,1-Trichloroethane	1/2	NC	8
Trichloroethylene	2/2	240	310
Vinyl chloride	2/2	28	56
Inorganics			
Aluminum	1/1	NC	863
Barium	1/1	NC	142
Calcium	1/1	NC	209,000
Chromium	1/1	NC	27.6
Copper	1/1	NC	52.3
Lead	1/1	NC	2.6
Magnesium	1/1	NC	1,380
Potassium	1/1	NC	3,100
Sodium	1/1	NC	60,500
Vanadium	1/1	NC	7
Zinc	1/1	NC	7.8

(a) Frequency of detection based on two samples for organics and one sample for inorganics. The samples were taken from a single monitoring well on two separate dates.

NC = Not calculated since chemical was detected in only one sample.

Attachment 6

CHEMICAL CONCENTRATIONS IN SURFACE WATER SAMPLES
AT PEACH ISLAND CREEK

(All concentrations in ug/liter)

Chemical	100 Feet Upstream (Loc. 4)	Adjacent to site (Loc. 3)	100 Feet Downstream (Loc. 2)	Confluence with Berry's Creek (Loc. 1)
Volatile Organic Compounds				
Chlorobenzene	ND	8.34	12.20	ND
Chloroform	ND	3.58	3.56	ND
1,2-trans-Dichloroethylene	ND	35.20	33.30	3.91
Methyl ethyl ketone	75	45.40	49.20	ND
Methylene chloride	4.63	6.12	12.90	14.90
1,1,1-Trichloroethane	ND	6.32	5.54	ND
Toluene	ND	20.60	48.10	ND
Trichlorethylene	ND	3.83	ND	ND
p-Xylene	ND	ND	10.70	ND
p+p-Xylenes	ND	ND	10.00	ND
Inorganic Chemicals				
Chromium	56	ND	28	ND
Copper	100	29	27	12
Mercury	4.8	0.96	1.1	2.1
Nickel	57	33	27	ND
Zinc	370	160	150	87

ND = Not detected.

SUMMARY OF CHEMICAL CONCENTRATIONS
IN SHALLOW SEDIMENTS (0-6 INCHES)

Chemical	Concentration			
	100 Feet Upstream (Loc. 4)	Adjacent to Site (Loc. 3)	100 Feet Downstream of Site (Loc. 2)	Confluence with Berry's Creek (Loc. 1)
Volatile Organic Compounds (ug/kg)				
Benzene	ND	ND	ND	82.5
Chlorobenzene	3,990	ND	17,100	200
Chloroform	ND	ND	3,690	ND
Ethylbenzene	4,610	39,000	35,100	ND
Methyl ethyl ketone	ND	ND	18,300	65.2
Methylene chloride	ND	ND	ND	42.3
m-Xylene	13,300	1,060,000	72,000	168
o+p-Xylenes	11,000	647,000	74,200	467
Tetrachloroethylene	ND	953,000	ND	ND
Toluene	41,500	2,970,000	322,000	ND
1,1,1-Trichloroethane	ND	222,000	ND	ND
Trichlorethylene	ND	9,950,000	ND	ND
Pesticides/PCBs (ug/kg)				
Dieldrin	ND	11,000	ND	ND
PCBs:				
Arochlor 1242	21,000	55,000	35,000	ND
Arochlor 1248	ND	ND	ND	19,000
Arochlor 1254	ND	ND	ND	5,200
Arochlor 1260	10,000	ND	6,000	ND
Semi-Volatiles (ug/kg)				
1,2,4-Trichlorobenzene	525	ND	ND	ND
1,2-Dichlorobenzene	1,850	3,670	424	ND
2-Chloronaphthalene	ND	ND	115	ND
Acenaphthene	ND	ND	166	ND
Benzo(a)pyrene	ND	ND	148	ND
Bis(2-ethylhexyl)phthalate	108,000	32,600	32,000	2,920
Butyl benzyl phthalate	ND	ND	736	ND
Chrysene	ND	ND	332	ND
Di-n-octylphthalate	ND	ND	600	ND

TABLE 10 (Continued)

SUMMARY OF CHEMICAL CONCENTRATIONS
IN SHALLOW SEDIMENTS (0-6 INCHES)

Chemical	Concentration			
	100 Feet Upstream (Loc. 4)	Adjacent to Site (Loc. 3)	100 Feet Downstream of Site (Loc. 2)	Confluence with Berry's Creek (Loc. 1)
Semi-Volatiles (ug/kg) (Cont'd)				
Di-n-butylphthalate	2,350	ND	ND	ND
Fluoranthene	928	ND	374	ND
Fluorene	536	ND	202	ND
Naphthalene	1,330	816	1,230	ND
Phenanthrene	1,820	ND	712	ND
Pyrene	916	ND	339	ND
2,4-Dimethylphenol	1,360	ND	ND	ND
Phenol	24,900	10,200	ND	ND
Inorganics (mg/kg)				
Arsenic	37	ND	ND	34
Beryllium	2.4	1	0.39	0.7
Cadmium	84	43	12	32
Chromium	819	345	156	1,060
Copper	9,510	2,000	1,240	861
Cyanide, total	0.12	0.21	0.001	0.005
Lead	320	520	340	360
Mercury	41	25	0.34	139
Nickel	467	110	96	100
Selenium	ND	ND	ND	0.89
Silver	2.4	2.7	ND	8.6
Thallium	1.0	ND	ND	1.1
Zinc	3,110	2,320	411	2,880

ND - Not detected.

ATTACHMENT 8

STATEMENT OF WORK

A. WORK TO BE PERFORMED

The Work to be conducted under this ORDER is planned to reduce the migration of hazardous substances, pollutants and contaminants into the groundwater and surface water from the first operable unit zone until a permanent remedy for the site is selected and implemented. As described in greater detail below, the Work to be performed under this ORDER shall include, but shall not be limited to, the following elements:

1. Remedial Design of the selected alternative as set forth in EPA's Record of Decision ("ROD") dated September 14, 1990 (hereinafter referred to as the "Selected Interim Remedial Alternative");

2. Remedial Construction of the Selected Interim Remedial Alternative;

3. Transportation of all extracted groundwater to an appropriate off-site facility (or facilities) for treatment and/or disposal; and

4. Operation and Maintenance ("O&M") of the Selected Interim Remedial Alternative and environmental monitoring to ensure the continued achievement of the objectives of the Selected Interim Remedial Alternative.

B. QUALIFICATIONS OF SUPERVISORY ENGINEER

The Remedial Design work, Remedial Construction work, Operation and Maintenance ("O&M") work, and any other work performed by Respondent(s) pursuant to this ORDER shall each be performed under the direction and supervision of a qualified, State licensed professional engineer. Prior to the initiation of any such work, Respondent(s) shall notify EPA and the State, in writing, of the name, title, proposed responsibilities, and qualifications of the supervisory engineer and the names of all contractors and subcontractors proposed to be used in the development and implementation of the remedial work to be performed by those parties. Selection of any such engineer, contractor or subcontractor shall be subject to approval by EPA.

C. Remedial Design Planning

1. On or before November 26, 1990, Respondent(s) shall submit a detailed Remedial Design Work Plan to EPA and the State for review and subsequent approval by EPA. The Remedial Design Work Plan shall be in conformance with the EPA document entitled "Superfund Remedial Design and Remedial Action

Guidance" (OSWER Directive 9355.0-4A, June 1986) and with any additional guidance documents provided by EPA. To the extent that the requirements of this SOW deviate from such guidance, the requirements of the SOW shall override the conflicting portions of the guidance. The Remedial Design Work Plan shall include the following items (to the extent that Work will be performed regarding the items):

a. Site Management Plan

The Site Management Plan ("SMP") for Remedial Design Activities shall be an overall plan which shall include identification of major contractors and major subcontractors and their respective responsibilities for performance of remedial design activities. The SMP shall include a list of all key responsible employees expected to participate in the Work and the curriculum vitae of each. The respective responsibilities for each key responsible employee shall be described. A provision shall be included for providing EPA and the State with supplemental information prior to any other major contractors, major subcontractors and key responsible employees becoming involved in the Work.

b. Sampling, Analysis and Monitoring Plan

i. The Sampling, Analysis and Monitoring Plan ("SAMP") shall provide for sampling, testing and analysis to obtain any additional data needed for performing the Remedial Design.

Field sampling methods utilized shall be selected using "NJDEP Field Sampling Procedures Manual", revised in February 1988, as a consideration. All testing methods and procedures shall be fully documented and, if applicable, referenced to established methods or standards.

Where appropriate and applicable, analyses will be performed in accordance with the EPA Contract Laboratory Program ("CLP") methods or with methods referenced in the "Test Methods for Evaluating Solid Wastes" (SW-846 3rd Edition, November 1986). CLP methods are those methods contained in "USEPA Contract Laboratory Program Statement of Work, Inorganic Analysis", Revised December 1987 and "USEPA Contract Laboratory Program Statement of Work for Organic Analysis", February 1988. For analyses performed in accordance with CLP methods, subsequent deliverables must be submitted according to CLP criteria. For those analyses not utilizing CLP methods, the subsequent deliverables must be similar to the CLP deliverables format. An example of each such format must be submitted as part of the Sampling and Analysis Plan to EPA and the State for review and subsequent approval by EPA prior to use.

ii. The Sampling and Analysis Plan shall include, but not be limited to, the following items:

(1) A map depicting proposed sampling locations with provisions for submitting a surveyed map depicting actual

sampling locations in the draft Remedial Design Report.

(2) A detailed description of all sampling, analysis, testing and monitoring to be performed both in support of the performance of the Remedial Design. The description shall include sampling methods, analytical and testing methods, frequency of sampling and sampling locations.

(3) A discussion of how the sampling, analysis, testing and monitoring will produce data useful for the Remedial Design or for other purposes.

(4) A schedule for performance of specific tasks.

(5) A Quality Assurance Project Plan ("QAPjP"), as described below.

iii. QAPjP Requirements

(1) The QAPjP shall be completed in accordance with the "Region II CERCLA Quality Assurance Manual," EPA, Region II, March 1988. In the event of any conflict between the requirements of that document and other quality assurance or quality control requirements stated or cited below, the requirements of that document shall supersede the conflicting portions of the other requirements.

(2) In order to provide quality assurance and maintain quality control regarding all samples collected pursuant to this ORDER, Respondent(s) shall ensure that the QAPjP provides for the following:

(a) The QAPjP shall include, at a minimum, the following items:

- Title Page
- Table of Contents
- Project Description
- Project Organization and Responsibility
- Quality Assurance Objectives
- Sampling Procedures
- Sample Custody
- Calibration Procedures and Frequency
- Analytical Procedures
- Data Reduction, Validation and Reporting
- Internal Quality Control Checks
- Performance and Systems Audits
- Preventive Maintenance
- Specific Routine Procedures Used to Assess Data Precision, Accuracy and Completeness
- Corrective Action
- Quality Assurance Reports to Management.

(b) Respondent(s) shall use procedures set forth in the EPA approved Sampling and Analysis Plan and

shall utilize standard EPA Chain of Custody procedures, as set forth in the EPA document entitled "National Enforcement Investigations Center Policies and Procedures Manual", as revised in May 1986.

(c) All laboratories utilized by Respondent(s) for analysis of samples taken pursuant to this ORDER shall perform all analyses according to the methods contained in the Sampling and Analysis Plan, which have been approved in writing by EPA.

(d) All analytical data shall be submitted in a CLP deliverables format, or in a similar approved format, to EPA and the State.

(e) All analytical data shall be validated according to the procedures contained or referenced in the approved QAPjP. When applicable and appropriate, the validation procedures shall be in accordance with the "Region II CERCLA Quality Assurance Manual", EPA, Region II, March 1988. When not applicable and appropriate, Respondent(s) shall submit other validation procedures with the QAPjP to EPA for approval.

(f) Prior to engagement, each laboratory utilized by Respondent(s) for analysis of samples taken pursuant to this ORDER shall demonstrate its ability to perform all tasks required for those analyses to be performed by it.

(g) All contracts with laboratories utilized by Respondent(s) for analysis of samples taken pursuant to this ORDER shall provide for access of EPA and State personnel or their authorized representatives to assure the accuracy of laboratory results related to the Site.

(h) All contracts with laboratories utilized by Respondent(s) under this ORDER shall require laboratories to analyze samples submitted by EPA or the State for quality assurance purposes.

iv. The Sampling and Analysis Plan must be approved by EPA prior to the commencement of any activities to which it pertains.

c. Health and Safety Plan

i. The Health and Safety Plan ("HASP") for Remedial Design Work shall address the protection of health, safety and response to contingencies which could impact health, safety and the environment during the Remedial Design period.

ii. Site activities concerning inspections, investigations, and sample collection must be performed in such a manner as to assure the safety and health of workers so engaged. The HASP shall be developed in accordance with the Occupational Safety and Health Administration, U.S. Department

of Labor ("OSHA") requirements cited below. All Site activities shall be conducted in accordance with all pertinent general industry (29 CFR 1910) and construction (29 CFR 1926) OSHA standards, as well as any other State or municipal codes or ordinances that may apply. All Site activities shall also comply with those requirements set forth in OSHA's interim final rule entitled "Hazardous Waste Operations and Emergency Response", 29 CFR 1910.120, Subpart H, as described in the Federal Register of December 19, 1986, until such time as the final rule takes effect.

iii. The HASP shall include, at a minimum, the following items:

(1) Plans showing the location and layout of any temporary facilities to be constructed on or near the Site.

(2) Description of the known hazards and evaluation of the risks associated with the Site and the potential health impacts related to the Site activities.

(3) List of key personnel and alternates responsible for Site safety, response operations and protection of the public.

(4) Description of levels of protection (based on specified standards) to be utilized by all personnel and a listing of protective equipment to be utilized.

(5) Delineation of work, decontamination and safe zones, and definitions of the movement of zones; including a map showing the location of these zones.

(6) Description of decontamination procedures for personnel and equipment, and handling/removal of disposable clothing or equipment.

(7) Incident emergency procedures which address emergency care for personnel injuries and exposure problems, and containment measures. These procedures shall include evacuation routes, internal and external communications procedures and procedures for response to fires and explosions. Local agencies with the capability to respond to emergencies shall be identified and their capabilities shall be described.

(8) Description of the personnel Medical Surveillance Program(s) in effect.

(9) Description of monitoring for personnel safety.

(10) Description of routine and special personnel training programs.

(11) Description of an air monitoring program to determine concentrations of airborne contaminants to which workers on-site and to which persons at the site boundary may

be exposed.

iv. The HASP must be reviewed and approved by EPA prior to commencement of the Work to which the HASP pertains.

d. Remedial Design Schedule and Draft Schedule for Remedial Construction and O&M Activities

i. The Remedial Design Schedule and draft schedule for Remedial Construction and O&M activities shall be in the form of a Task/Subtask activity bar chart or critical path method sequence of events. The Remedial Design Work Plan schedule shall provide for completion and submittal to EPA of the Remedial Design Report on or before March 11, 1991. (See Sections D., E. and F., below, for Remedial Design, Remedial Construction and O&M requirements.)

ii. The draft schedule for Remedial Construction and O&M activities may be revised during the remedial process. (See Paragraph D.2.c., below.)

e. Plan for Obtaining Access Approvals and Other Approvals

Such plan shall address any approvals which Respondent(s) will require to comply with this ORDER. The plan shall detail how such approvals will be sought and will include a schedule for obtaining all necessary approvals. Such approvals may include permission of owners of property near the Site for access to install wells, monitoring or other activities; and approvals of off-Site waste management/treatment facilities, as necessary to accept materials from the Site.

f. A Preliminary Remedial Design Report which shall include:

The Preliminary Remedial Design Report shall include a description and analysis of various design options including potential construction materials available for the slurry wall and cap, various potential installation methods for the slurry wall and a conceptual design of the first operable unit zone dewatering system. The Preliminary Remedial Design Report should recommend a preferred conceptual design. The design analysis shall provide the rationale for recommending a preferred conceptual design, including supporting calculations and documentation of how such design will meet the requirements of the ROD and Selected Interim Remedial Alternative. The design reports must also include the following items (to the extent that Work will be performed regarding the items):

i. A preliminary Construction Operations Plan which shall address the methods by which construction operations shall proceed. The discussion of methods shall address the timing of and manner in which activities shall be sequenced.

The Plan shall include separate components which address, but shall not be limited to, the following:

- Preparation of the Site including security, utilities, decontamination facilities, construction trailers, equipment storage, and construction of roadways.

- The sequencing of construction activities, including well installation and treatment system construction.

- Coordination of construction activities.

- Site inspections and maintenance during the Remedial Construction phase of the Work.

- Coordination with local authorities regarding contingency planning and potential traffic obstruction.

ii. Preliminary construction drawings, of standard size, of proposed Work, facilities, equipment, improvements, details and all other construction and installation items as well as drawings representing an accurate identification of existing Site conditions. Typical items to be provided on such drawings include, but need not be limited to:

- Title sheet bearing at least the title of the project, a key map, the name of the designer, date prepared, sheet index, EPA/NJDEP Project identification, etc.

- All property data including owners of record for all properties within 200 feet of the Site.

- The distance and bearing of all property lines which identify and define the project Site.

- All easements, rights-of-way and reservations.

- All buildings, structures, wells, facilities, controls, equipment and features, existing and proposed.

- A topographic survey, including existing and proposed contours and spot elevations, based on U.S. Geological Service datum.

- All utilities, existing and proposed.

- Location and identification of all significant natural features including, but not limited to, wooded areas, water courses, wetlands, flood hazard areas and depressions.

- Flood hazard data and delineation, if applicable.

- North arrow, scale, sheet numbers and the person responsible for preparing each sheet.

- Decontamination areas, staging areas, borrow areas and stockpiling areas.

- Miscellaneous detail sheets.

- Definitions of all symbols and abbreviations.

- Items not typically required to be included in the preliminary phase of design drawings include:

electrical drawings; mechanical drawings; HVAC (heating, ventilation and air conditioning) drawings; structural drawings; and miscellaneous construction details.

g. Site Maintenance Plan

The Site Maintenance Plan shall be a plan for the routine maintenance of the Site during the Remedial Design phase of the work. It shall address, but not be limited to, inspection and maintenance of Site security systems.

2. EPA will either approve the Remedial Design Work Plan, or will require modification of such plan, in accordance with the procedures set forth in Paragraphs 152, 153 and 154 of this ORDER.

D. Remedial Design

1. Respondent(s) shall perform the Remedial Design, in conformance with the approved Remedial Design Work Plan. The Remedial Design schedule shall provide for the completion and submittal to EPA of the Remedial Design Report on or before March 11, 1991.

2. The Remedial Design Work shall include the preparation of a Remedial Design Report. The Remedial Design Report shall include the plans and specifications which have been completed, together with a design analysis. The design analysis shall provide the rationale for the plans and specifications, including supporting calculations and documentation of how these plans and specifications will meet the requirements of the ROD and Selected Remedial Alternative. The design report must also include the following items (to the extent that Work will be performed regarding the items):

a. A Sampling, Analysis and Monitoring Plan for sampling, analysis, testing and monitoring to be performed during the Remedial Construction phase of the Work. The SAMP shall meet the requirements of Paragraph C.1.b, above.

i. The QAPjP for this Sampling and Analysis Plan shall also address quality assurance requirements and standards relating to construction operations. Quality assurance items to be addressed include, but need not be limited to:

- Inspection of the work
- Daily logging
- As-built drawings
- Testing of the Work to establish whether the design specifications are attained.

b. A Health and Safety Plan for the Remedial Construction phase of the Work. The HASP for Remedial Construction shall meet the requirements of Paragraph C.1.c., above.

i. Such Plan shall address health and safety measures to be implemented and observed by construction personnel, as well as recommended health and safety measures for the adjacent community and general public together with a description of the program for informing the community of these recommendations.

c. A schedule for Remedial Construction and O&M activities. (See Paragraph C.1.d., above.) Such schedule shall provide that construction of the selected remedial alternative under this ORDER shall be completed on or before November 18, 1991.

d. An Operation and Maintenance Plan for the O&M Phase of the Work. The O&M Plan¹ shall include, but need not be limited to, the following elements:

i. A Sampling, Analysis and Monitoring Plan which identifies sampling procedures and locations, analytical parameters, frequency, etc. (See Paragraph C.1.b., above for SAMP requirements.)

ii. A Health and Safety Plan addressing both routine procedures and emergency response actions. (See Paragraph C.1.c., above, for HASP requirements.)

iii. A description of the equipment.

iv. A description of routine O&M for the components of the selected remedial alternative including a description of tasks for operation, tasks for maintenance, prescribed operating conditions, and a schedule showing the frequency of each O&M task.

v. A description of potential operating problems and remedies to such problems.

vi. A description of alternative O&M in the event of system failure.

vii. A schedule for equipment replacement.

viii. A description of the routine O&M activities for the Site.

¹ O&M activities which will occur prior to the completion of the Remedial Construction should not be addressed in the O&M Plan, but in the Site Maintenance Plan or Construction Operations Plan, as applicable. (See Paragraphs C.1.g. and D.2.f. of this Statement of Work.)

ix. An O&M schedule which identifies the frequency of O&M activities for the Site and when those activities will commence.

e. Completed permit applications for Work to be performed entirely at the Site (including any required supplements) for Federal and State environmental permits which would be required if the remedial action were not conducted under the authority of CERCLA. Examples of when such applications may be needed include:

- Waste water treatment facilities;
- All points of contaminant emission to the atmosphere;
- On-site treatment, storage and/or disposal of hazardous wastes;
- Groundwater lowering or diversion;
- Groundwater monitoring well installation;
- Other permits, as applicable.

f. A Construction Operations Plan which shall address the methods by which construction operations shall proceed. The discussion of methods shall address the timing of and manner in which activities shall be sequenced.

The Plan shall include separate components which address, but shall not be limited to, the following:

i. Preparation of the Site including security, utilities, decontamination facilities, construction trailers, equipment storage, and construction of roadways.

ii. The sequencing of construction activities.

iii. Coordination of construction activities.

iv. Site inspections and maintenance during the Remedial Construction phase of the Work.

v. Coordination with local authorities regarding contingency planning and potential traffic obstruction.

Whenever practical, elements of the Construction Operations Plan shall be clearly depicted on the Engineering Plans.

g. A report of efforts made to secure access and obtain other approvals and of the results of those efforts. (See Paragraph C.1.e., above.) Legal descriptions of property or easements to be acquired shall be provided including, but not limited to, property owners, site operators, addresses and lot and block numbers, and grantors and grantees of easements.

i. Plans for photographic documentation of the Remedial Construction Work. (See Paragraph E.4, below.)

3. The Remedial Design Report shall also include: Construction drawings, of standard size, of proposed Work, facilities, equipment, improvements, details and all other construction and installation items as well as drawings representing an accurate identification of existing Site conditions. Typical items to be provided on such drawings shall include those listed in Paragraph C.1.f.i.

4. The Remedial Design Report shall, as appropriate, include the following:

a. A discussion of the design criteria and objectives, with emphasis on the capacity and ability to successfully meet design objectives.

b. Table of Contents for the specifications, including a listing of specification items from the Construction Specifications Institute master format expected to be included in the construction specifications. This master format is presented in the Construction Specifications Institute's "Manual of Practice", 1985 edition, available from the Construction Specifications Institute, 601 Madison Street, Alexandria, Virginia 22314.

c. Site security measures.

d. Site safety and emergency measures.

e. Plan view(s) for Site preparation and layout.

f. List of drawing sheet titles.

g. Construction material recommendations.

5. Respondent(s) shall provide surveying services prior to the final design submission. All survey work shall be appropriately marked, recorded and interpreted for mapping, property easements and design completion.

6. The Remedial Design Reports shall be submitted to EPA and the State in accordance with the schedule set forth in the EPA approved Remedial Design Work Plan.

7. EPA will either approve the Remedial Design Report or will require modification of it, in accordance with the procedures set forth in Paragraphs 152, 153 and 154 of this ORDER. The EPA approved Remedial Design Report shall also be

referred to as the Final Remedial Design Report.

E. REMEDIAL CONSTRUCTION

1. In accordance with the schedule for Remedial Construction and O&M activities (see Paragraph D.2.c., above), Respondent(s) shall submit the following items to EPA and the State:

a. Any requests for modification of the approved Final Design Report based on construction methods identified by the proposed construction contractor(s) or other new information.

b. A Site Management Plan for Remedial Construction activities. (See Section C.1.a., above, for SMP requirements.) The SMP for Remedial Construction activities shall identify all off-Site facilities proposed to be used to manage hazardous substances or other materials from the Site resulting from the Remedial Construction and Operation and Maintenance Work. For each facility, the proposed materials and methods of management shall be described.

2. EPA will either approve the Site Management Plan for Remedial Construction and any requests for modification of the Final Design Report or require modification of them in accordance with the procedures set forth in Paragraphs 152, 153 and 154 of this ORDER.

3. Following receipt of both the written approval of EPA of the Site Management Plan for Remedial Construction activities, and the written approval or disapproval of any requests for modification of the Final Design Report, Respondent(s) shall award the Remedial Construction contract(s) and shall perform the Remedial Construction Work in accordance with the approved Final Design Report, including the approved Remedial Construction schedule.

4. Respondent(s) shall furnish photographs and slides to EPA and the State that record the progress of construction including, but not limited to, the important features of the Site prior to the commencement of the work, construction activities for the various tasks, and the appearance of the Site after the construction has been completed. Such photographs and slides shall be developed expeditiously and shall be submitted as part of the monthly progress report for the month in which the photographs are developed.

5. Within ten (10) business days of the completion of Remedial Construction for the first operable unit, Respondent(s) shall submit to EPA and the State a Notice of

Completion and Final Report for the Remedial Construction for the groundwater component of the first operable unit. The Notice of Completion shall be signed by a State licensed professional engineer and a responsible corporate officer for Respondent(s) and shall certify that the Remedial Construction Work for the first operable unit has been completed in full satisfaction of the requirements of this ORDER. The Final Report shall summarize the Work performed. If the remedy as implemented differs in any way from the approved plans and specifications of the Final Design Report, such modifications shall be reported and "as built" plans and specifications shall be provided showing all such modifications. The reasons for all such modifications shall be described in detail.

F. OPERATION AND MAINTENANCE

Respondent(s) shall perform O&M activities in accordance with the O&M Plan contained in the approved Final Remedial Design Plan, including the O&M schedule. (See Paragraph D.2.d., above.)

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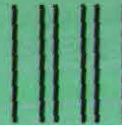
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